

Response of anthurium to foliar application of urea and growth regulators in shade net house

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ABSTRACT

An experiment on "Response of anthurium to foliar application of urea and growth regulators in shade net house" was carried out at Floriculture Research Scheme, Regional Horticultural Research Station, Navsari Agricultural University, Navsari during the last week of July 2007 to April 2008, under Factorial concept with Completely Randomized Design replicated thrice, which included 20 treatment combinations of BA (50,100 and 150 ppm), GA₃ (50,100 and 150 ppm), urea (0.5, 1 and 1.5%) as well as control with two cultivars viz., "Coralis" and "Patino". In each treatment four plants per variety were selected for observations. The spraying of urea and growth regulators was done twice at 25 and 50 days after transplanting to the pot by using micro fine nozzle of Ganesh Hand sprayer during morning hours. All the leaves were thoroughly sprayed from all the sides. For this purpose 20 to 25 ml solution per plant was sufficient. It could be concluded that both urea and growth regulators had beneficial effect over control in both the cultivars in respect of growth and flowering characters. Although spraying of GA₃ @ 150 ppm is more beneficial. Interaction effect of treatment x variety (T x V) was non significant with respect to number of suckers per plant whereas all other, growth, flowering, yield and quality parameters recorded significant effect.

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Key words : Anthurium, Urea, BA, GA₃, Growth, Flowering, yield, Quality, Shade net house.

Anthurium (*Anthurium andreanum* Lind.) belongs to Araceae family is the most popular with flower arrangers because of the bold effect and lasting qualities of the inflorescence. It is a native of Columbia and is a perennial, herbaceous, semi terrestrial plant with somewhat creeping habit of growth, using aerial roots for and anchorage. Plant is erect with long lobed and heart shaped green leaves. Its flower is a combination of colourful modified leaf (spathe) and pencil like protrusion (spadix) borne on leafless stalk or peduncle (Bhatt and Desai, 1989). Hundreds of small bisexual, sessile flowers are arranged on the spadix. It requires warm greenhouse and humid condition. Six to eight flowers are obtained per plant per year from the axil of every leaf (Paull *et al.*, 1992). Bright red and bright orange are the colours for which greatest demand exists all over the world, followed by white and lastly pink. Double coloured varieties are also gaining importance.

In India, anthurium industry is still in its infancy. Among the different management practices in flower crops, in addition to NPK fertilizers, plant growth regulators have a great bearing in influencing the growth and flowering attributes. Now-a-days plant growth regulators can be easily available in the market. Until now no comprehensive research work has been carried out on systematic cultivation of anthurium with respect to foliar application of urea as well as plant growth regulators

under agroclimatic condition of south Gujarat region. The information generated by conducting such research will be a valuable guidance to the research workers and florists in other regions. Considering the importance of these aspects an experiment on foliar application of plant growth regulators and urea with varying concentrations was conducted on anthurium.

MATERIALS AND METHODS

An experiment on "Response of anthurium to foliar application of urea and growth regulators in shade net house" was carried out at Floriculture Research Scheme, Regional Horticultural Research Station, Navsari Agricultural University, Navsari during the last week of July 2007 to April 2008, under Factorial concept with Completely Randomized Design replicated thrice, which included 20 treatment combinations of BA (50,100 and 150 ppm), GA₃ (50,100 and 150 ppm), urea (0.5, 1 and 1.5%) as well as control with two cultivars viz., "Coralis" and "Patino". In each treatment four plants per variety were selected for observations. The spraying of urea and growth regulators was done twice at 25 and 50 days after transplanting to the pot by using micro fine nozzle of Ganesh Hand sprayer during morning hours. All the leaves were thoroughly sprayed from all the sides. For this purpose 20 to 25 ml solution per plant was sufficient. The